

Remarks

By this amendment, claim 5 is canceled, without prejudice or disclaimer of the subject matter therein, and claims 1-4, 6 and 7 are amended. Applicant respectfully requests entry and examination of new claims 8-12. Support for new claim 8 may be found in the originally filed application, for example, in paragraph [0046] and in Figure 3 of the pre-grant publication (2007/0014673 A1) thereof. Support for new claim 9 may be found in the originally filed application, for example, in paragraphs [0022] and [0042] of the pre-grant publication thereof. Support for new claim 10 may be found in the originally filed application, for example, in paragraphs [0022] and [0041] of the pre-grant publication thereof. Support for new claims 11 and 12 may be found in the originally filed application, for example, in paragraphs [0025] - [0027] of the pre-grant publication thereof. No new matter has been added as a result of this amendment. The following remarks are respectfully submitted.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the increase of delivered volume flow shortly before the end of the compression stroke discussed in claim 5 must be shown or the feature(s) canceled from the claims. Applicant has canceled claim 5, without prejudice or disclaimer of the subject matter therein, and respectfully requests that the Examiner withdraw the objection to the drawings.

§112 Rejections

Claim 3 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The Examiner has asserted that the equation referenced in claim 3 is not adequately disclosed, since the variables are not defined. Applicant respectfully traverses the rejection of claim 3, based upon the following argument.

Applicant respectfully asserts that the description found in paragraphs [0017] – [0020] of the pre-grant publication (2007/0014673 A1) of the present application sufficiently defines the variables of the equation of claim 3, in order to enable those skilled in the art. In particular, upon review the aforementioned description, those skilled in the art will appreciate that:

- $\omega(t)$ is an angular velocity of the cam, with respect to time (paragraph [0020]), which is the same as the rotating speed of the cam that is varied, according to independent claim 1;
- T_D is a length of the compression stroke of the pump, a maximum length of which is standardized to 1 (paragraph [0020];
- x is the standard symbol for the mathematical operation of multiplication, which is well known to those skilled in the art; and
- t is the standard symbol for time, which is also well known to those skilled in the art.

In light of the argument, presented above, Applicant respectfully requests that the Examiner withdraw the rejection of claim 3.

Claims 1-7 are rejected, under the second paragraph of 35 U.S.C. 112, which states that:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Applicant has canceled claim 5, without prejudice or disclaimer of the subject matter therein, rendering the rejection of claim 5 moot. Applicant respectfully traverses the rejection of claims 1-4, 6 and 7, based on the amendments thereto, which have remedied the one or more instances of insufficient antecedent basis in each of claims 1, 2, 4 and 7, and the indefiniteness of claims 3 and 6. Applicant's traversal of the rejection of claim 3 is further based upon the argument presented above, in which antecedent basis, within the specification, is cited for the equation of claim 3. In light of the amendments and the argument, Applicant respectfully requests that the Examiner withdraw the rejection of claims 1-4, 6 and 7.

§102 Rejection

Claims 1, 2, 3, 4, 5, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by PCT Publication WO99/61795 to Haberlander et al. (Haberlander et al.), U.S. Patent 6,457,944 has been used as an English translation. Applicant has canceled claim 5, without prejudice or disclaimer of the subject matter therein, rendering the rejection of claim 5 moot. Applicant respectfully traverses the rejection of claims 1-4 and 7, based upon the argument, presented below, and the amendment of independent claim 1.

Claim 1, as amended, defines a method for controlling a diaphragm or piston pump, which includes, *inter alia*, a step of varying a rotating speed of a cam during actuation of a compression stroke of the pump; the cam is said to be powered by an electric motor and to actuate the pump, via a ram, or a connecting rod. Support for amended claim 1 may be found in the originally filed specification, for example, in paragraphs [0014], [0041] and [0046], and in Figure 3, all of the pre-grant publication (2007/0014673 A1). Haberlander et al. neither teach nor suggest a method as is defined by claim 1 of the present application. If, as the Examiner has suggested, the pressure cycle 17 of Haberlander et al. is likened to the compression stroke of claim 1, of the present application, and the motor rotational speed n , or N , of Haberlander et al., to the rotating speed of the cam, of claim 1, it can be readily ascertained, with reference to Figures 2a, 2b, 3a and 3b of Haberlander et al., that the motor rotational speed N is kept constant over all of the time that defines the pressure cycle 17.

In light of the argument presented above, along with the amendment of claim 1, Applicant respectfully requests that the Examiner withdraw the rejection of claims 1-4, and 7.

§103 Rejection

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haberlander et al. in view of PCT Publication WO02/087057 to Weigold et al. (Weigold et al.), U.S. Patent Application Publication 2004/0027014 has been used as an English translation. Applicant respectfully traverses the rejection of claim 6, based upon the amendment to independent claim 1, and upon the argument presented above, and respectfully requests that the Examiner withdraw the rejection of claim 6.

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested. The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

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Date

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